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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,512	04/06/2000	Corneliu I. Lupu	MSFT114614	9057

26389 7590 12/29/2005

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EXAMINER	
VU, TUAN A	
ART UNIT	**PAPER NUMBER**
2193	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Allowability	Application No.	Applicant(s)	
	09/544,512	LUPU ET AL.	
	Examiner	Art Unit	
	Tuan A. Vu	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *4/25/2005*.

2. ☒ The allowed claim(s) is/are *1,3-4, 6-7, 9-10,12-13,15-16, 18 (now renumbered 1-12)*.

3. ☒ The drawings filed on *06 April 2000* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

TODD INGBERG
PRIMARY EXAMINER

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 4/25/05.

As indicated in Applicant's response, claims 1, 5-7, 11-13, 17-18 have been amended and claims 2, 8, 14 canceled. Claims 1, 3-7, 9-13, and 15-18 are pending in the office action.

EXAMINER'S AMENDMENT

2. Authorization for this examiner's amendment was given in a telephone interview with Joy Xiang, Reg. # 55,747 on 6/23/05.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows.

In the CLAIMS (as submitted per response of 4/25/05)

Claim 1:

A method for patching a computer application program including a plurality of executable steps, comprising:

(a) determining whether or not the computer application program is compatible with a computer operating system executing the computer application program; and

(b) if the computer application program is determined to be incompatible with the computer operating system ("incompatible application"), starting a debugger to run the incompatible application, the debugger performing the steps of:

~~(i) setting at least one breakpoint within the incompatible application indicating a stopping point for the debugger;~~

(i) loading a debugger dynamic link library containing a list of breakpoints, each breakpoint having a handler having a set of instructions for patching the incompatible application;

(ii) accessing the list of breakpoints from the debugger dynamic link library and setting the breakpoints within the incompatible application;

[[(ii)]](iii) running the steps of the incompatible application through the debugger; and

[[(iii)]](iv) patching the incompatible application whenever a breakpoint has been reached.

Claim 5: (Canceled)

Claim 7:

A computer-readable medium having computer-executable instructions for patching a computer application program including a plurality of executable steps, which, when the computer-executable instructions are executed, comprise:

(a) determining whether or not the computer application program is compatible with a computer operating system executing the computer application program; and

(b) if the computer application program is determined to be incompatible with the computer operating system ("incompatible application"), starting a debugger to run the incompatible application, the debugger performing the steps of:

~~(i) setting at least one breakpoint within the incompatible application indicating a stopping point for the debugger;~~

(i) loading a debugger dynamic link library containing a list of breakpoints, wherein each breakpoint has a handler having a set of instructions for patching the incompatible application;

(ii) accessing the list of breakpoints from the debugger dynamic link library and setting the breakpoints within the incompatible application;

[[(ii)]](iii) running the steps of the incompatible application through the debugger; and

[[(iii)]](iv) patching the incompatible application whenever a breakpoint has been reached.

Claim 11: (Canceled)

Claim 13:

A computer system implementing a method for patching a computer application program wherein the computer system is ~~capable of running~~ operable to run an application having a plurality of executable steps, the method comprising:

(a) determining whether or not the computer application program is compatible with a computer operating system executing the computer application program; and

(b) if the computer application program is determined to be incompatible with the computer operating system ("incompatible application"), starting a debugger to run the incompatible application, the debugger performing the steps of:

~~(i) setting at least one breakpoint within the incompatible application indicating a stopping point for the debugger;~~

(i) loading a debugger dynamic link library containing a list of breakpoints, wherein each breakpoint has a handler having a set of instructions for patching the incompatible application;

(ii) accessing the list of breakpoints from the debugger dynamic link library and setting the breakpoints within the incompatible application;

[[(ii)]](iii) running the steps of the incompatible application through the debugger; and

[[(iii)]](iv)) patching the incompatible application whenever a breakpoint has been reached.

Claim 17: (Canceled)

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

3. Claims 1, 3-4, 6-7, 9-10, 12-13, 15-16, and 18 are allowed; claims 5, 11 and 17 being canceled.

The following is an examiner's statement of reasons for allowance:

The prior art taken separately or jointly does not suggest or teach the following features.

A method/computer system for patching a computer application program comprising (i) determining if the application program is compatible with a computer operating system executing the program; and if the application program is determined to be incompatible with the operating system, starting a debugger, the debugger performing the steps of (ii) loading a debugger dynamic link library containing therein a list of breakpoints having each a handler for patching the incompatible application; running the steps of the incompatible application through the debugger and patching the application when a breakpoint has been reached as recited in claims 1, 7, and 13.

Stone, "In memory patching: three approaches", discloses a operating system kernel patching using APIs in form of dynamic linked library functions the loading of which is based on reading from a import file operable to provide information on breakpoint setting by the user in a debug mode but does not teach or suggest a determining a determination step to see if an

application is incompatible with the Operating System executing the application and invoke a debugger thereupon as in (i) to patch the incompatible application program by loading a DLL debugger with list of breakpoints included therein each with handler for patching of said application whenever a breakpoint is reached as in (ii).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (272) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571)272-3719.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence – please consult Examiner before using) or 703-872-9306 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VAT
December 27, 2005

TODD INGBERG
PRIMARY EXAMINER